KAREL HRON
PUBLICATION LIST

BOOKS

- Filzmoser, P., Hron, K., Templ, M. *Applied compositional data analysis*, Springer Series in Statistics. Springer, Cham, 2018.

EDITED BOOKS

- Filzmoser, P., Hron, K., Martín-Fernández, J.A., Palarea-Albaladejo, J. (eds.) *Advances in Compositional Data Analysis.* Springer, Cham, 2021.

CHAPTERS IN BOOKS

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Statistische Woche 2012, Vienna, Austria:
Hron, K., Filzmoser, P.: *Classical and robust correlation analysis for compositional data*

SMPS 2012, Konstanz, Germany:
Hron, K., Filzmoser, P.: *Robust diagnostics of fuzzy clustering results using the compositional approach* (invited)

Workshop Statistické zpracování experimentálních dat, Velké Losiny, CZ:
Hron, K.: *Regrese s kompozičními vysvětlujícími proměnnými*

ERCIM 2012, Oviedo, Spain:
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CoDaWork 2013, Vorau, Austria:
Templ, M., Eichler, J., Hron, K., Filzmoser, P., Tolosana-Delgado, R., van den Boogaart, K.G.: *The R packages „robCompositions" and „compositionsGUI"*

CoDaWork 2013, Vorau, Austria:
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Mert, C., Filzmoser, P., Hron, K.: *Sparse principal balances*

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Fačevicová, K., Hron, K.: *Statistical analysis of 2x2 compositional tables using coordinates* (poster)

CoDaWork 2013, Vorau, Austria:
Hrůzová, K., Hron, K.: *Compositional analysis of stock exchange data* (poster)

CoDaWork 2013, Vorau, Austria:
Jelínková, M., Hron, K., Doležalová, I., Peč, J., Dušek, K.: *Statistical analysis using the logratio approach for plant genetic resources evaluation* (poster)

CoDaWork 2013, Vorau, Austria:
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Kynčlová, P., Filzmoser, P., Hron, K.: *Compositional time series: The VAR model* (poster)

CoDaWork 2013, Vorau, Austria:
Monti, G.S., Hron, K., Hrůzová, K., Fišerová, E.: *Dose-response modeling using the logratio approach* (poster)

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Olomouc BioTech 2013, Olomouc, CZ:
Jelínková, M., Doležalová, I., Hron, K., Kalivodová, A., Dušek, K.: *PARAFAC – Decomposition method for plant resources genetic evaluation* (poster)

ODAM 2013, Olomouc, CZ:
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Hron, K., Filzmoser, P., Templ, M., van den Boogaart, K.G., Tolosana-Dalgado, R. *Robust regression with compositional response: Application to geosciences*
ERCIM 2013, London, Great Britain:
Martín-Fernández, J.A., Palarea-Albaladejo, J., Hron, K. *Zeros in compositional count data sets: The geometric Bayesian-multiplicative imputation*
ERCIM 2013, London, Great Britain:
Hrůzová, K., Hron, K., Templ, M., Filzmoser, P., Monti, G.S. *Classical and robust principal component analysis for density functions using Bayes spaces*
ERCIM 2013, London, Great Britain:
Hron, K., Fačevicová, K., Vencálek, O. *Statistical analysis of compositional tables in coordinates* (invited)
ERCIM 2013, London, Great Britain:
Monti, G.S., Migliorati, S., Hron, K., Hrůzová, K., Fišerová, E. *Simplicial regression: a useful tool in ecological risk assessment*
ERCIM 2013, London, Great Britain:
Todorov, V., Hrůzová, K., Hron, K., Filzmoser, P. *Compositional data analysis of the resource efficiency in manufacturing*
ERCIM 2013, London, Great Britain:
Mert, M.C., Filzmoser, P., Hron, K. *Sparse principal balances for high-dimensional compositional data*

2014   Robust 2014, Jetřichovice, CZ:
Hron, K., Mert, C., Filzmoser, P. *Řídké hlavní bilance*
Robust 2014, Jetřichovice, CZ:
Fačevicová, K., Hron, K. *Statistická analýza kompozičních tabulek*
Robust 2014, Jetřichovice, CZ:
Hrůzová, K., Hron, K. *Ekonomická aplikace kompozičního regresního modelu pro odhad rizika*
Robust 2014, Jetřichovice, CZ:
Kynčlová, P., Filzmoser, P., Hron, K. *Aplikace T-prostorů při modelování kompozičních časových řad*
Robust 2014, Jetřichovice, CZ:
Donevska, S., Filzmoser, P., Fišerová, E., Hron, K. *Výběr proměnných v kompozičních datech*
Robust 2014, Jetřichovice, CZ:
Kalivodová, A., Hron, K., Filzmoser, P., Najdekr, L. *Metoda dílčích nejmenších čtverců pro kompoziční data s aplikací v metabolomice*
PLS 2014, Paris, France:
Hron, K., Kalivodová, A., Filzmoser, P., Najdekr, L. *PLS-DA for compositional data with application to metabolomics*
SDA 2014, Taipei, Taiwan:
Brito, P., Filzmoser, P., Hron, K. *Exploratory data analysis for interval compositional data*

StatGeo Conference, Olomouc, CZ:
Hrůzová, K., Hron, K., Todorov, V. *Classical and robust regression among parts of compositional data*
StatGeo Conference, Olomouc, CZ:
Kalivodová, A., Hron, K., Templ, M., Filzmoser, P. *Replacement of rounded zeros in high-dimensional compositional data with application to metabolomics*
StatGeo Conference, Olomouc, CZ:
Kynčlová, P., Filzmoser, P., Hron, K. *Compositional biplots with external non-compositional variables*
GeoMap Workshop, Olomouc, CZ:
Bábek, O., Hron, K., Grygar, T. M., Faméra, M., Nováková, T., Sedláček, J., Fačevicová, K. *Logratio approach to geochemical background definition in moderately polluted river sediments: River Morava, Czech Republic*
GeoMap Workshop, Olomouc, CZ:
Reimann, C., Filzmoser, P., Hron, K. *Geochemical mapping and CoDa: Problems and possibilities*
JSM 2014, Boston, USA:
Templ, M., Hron, K., Filzmoser, P. *The problem of missing values and rounded zeros in compositional data*
LinStat 2014, Linköping, Sweden:
Donevska, S., Fišerová, E., Filzmoser, P., Hron, K. *Variable selection stepwise procedure for compositional data*
LinStat 2014, Linköping, Sweden:
Fačevicová, K., Hron, K. *Coordinate representation of compositional tables*
LinStat 2014, Linköping, Sweden:
Hrůzová, K., Hron, K., Filzmoser, P., Todorov, V. *Orthogonal regression among parts of compositional data*
LinStat 2014, Linköping, Sweden:
Kalivodová, A., Hron, K., Filzmoser, P. *Partial least squares discriminant analysis for compositional data: logratio metodology and its application to metabolomics*
MME 2014, Olomouc, CZ:
Hrůzová, K., Hron, K., Todorov, V., Filzmoser, P. *Compositional orthogonal regression of the ressource efficiency in manufacturing*
MME 2014, Olomouc, CZ:
Fačevicová, K., Todorov, V., Hron, K. *Compositional tables analysis with application to manufacturing*
SMPS 2014, Warsaw, Poland:
Pavlačka, O., Hron, K. *Interval compositional data: Problems and possibilities*
IAMG 2014, New Delhi, India:
Tolosana-Delgado, R., van den Boogaart, K.G., Filzmoser, P., Hron, K., Templ, M. *Compositional regression: An overview*
ERCIM 2014, Pisa, Italy:
Fačevicová, K., Hron, K., Templ, M., Todorov, V. *Robust explorátory data analysis of compositional tables*
ERCIM 2014, Pisa, Italy:
Kalivodová, A., Hron, K., Filzmoser, P. *PLS-DA for metabolomical (compositional) data using the logratio approach*
ERCIM 2014, Pisa, Italy:
Mert, C., Filzmoser, P., Hron, K. *Error propagation of compositional data transformations*
ERCIM 2014, Pisa, Italy:
Brito, P., Filzmoser, P., Hron, K. *Statistical analysis of interval compositional data*

ERCIM 2014, Pisa, Italy:

Hron, K., Menafoglio, A., Templ, M., Hrůzová, K., Filzmoser, P. *Simplicial principal component analysis for density functions in Bayes spaces*

ERCIM 2014, Pisa, Italy:

Kynčlová, P., Filzmoser, P., Hron, K. *Application of T-spaces in modeling compositional time series*

ERCIM 2014, Pisa, Italy:

Fišerová, E., Hron, K. *Linear regression model with compositional response*

2015   IMS 2015, Krakow, Poland:

Poukarová, H., Hron, K., Bábek, O., Faměra, M., Šimíček, D., Slavík, L., Hladil, J., Weiner, T. *Quantitative compositional analysis of the Lochkovian-Pragian boundary event at "Na Chlumu Quarry" (Prague synform, Czech Republic)*

ODAM 2015, Olomouc, CZ:

Hron, K., Kynčlová, P., Filzmoser, P. *Logratio approach to correlation between parts of compositional data*

ODAM 2015, Olomouc, CZ:

Gardlo, A., Hron, K. *PARAFAC for compositional data with application to metabolomics*

ODAM 2015, Olomouc, CZ:

Hrůzová, K., Hron, K., Rypka, M. *Compositional analysis of trade flows structure*

ODAM 2015, Olomouc, CZ:

Kynčlová, P., Filzmoser, P., Hron, K. *Plotting compositional and non-compositional variables in a biplot*

ODAM 2015, Olomouc, CZ:

Filzmoser, P., Hron, K., de Caritat, P., Gardlo, A. *Constructing weighted balances for compositional data*

CoDaWork 2015, L'Escala, Spain:

Hron, K., Kynčlová, P., Filzmoser, P. *Coordinate approach to correlation between compositional parts*

CoDaWork 2015, L'Escala, Spain:

Hrůzová, K., Hron, K., Todorov, V., Filzmoser, P. *Orthogonal regression among parts of compositional data with an economic application*

CoDaWork 2015, L'Escala, Spain:

Mert, M.C., Filzmoser, P., Hron, K. *Error propagation of compositional data transformations*

CoDaWork 2015, L'Escala, Spain:

Tolosana-Delgado, R., van den Boogaart, K.G., Fišerová, E., Hron, K., Dunkl, I. *Joint compositional calibration: a geochronological example*

CoDaWork 2015, L'Escala, Spain:

Filzmoser, P., Hron, K. *Robust coordinates for compositional data using weighted balances*

CoDaWork 2015, L'Escala, Spain:

Fačevicová, K., Hron, K. *Orthonormal coordinate representation of compositional tables*

CoDaWork 2015, L'Escala, Spain:

Kynčlová, P., Filzmoser, P., Hron, K. *Including non-compositional variables into compositional biplots*

CoDaWork 2015, L'Escala, Spain:

Templ, M., Hron., K., Menafoglio, A., Hrůzová, K., Filzmoser, P. *Simplicial principal component analysis for density functions*

CoDaWork 2015, L'Escala, Spain:

Gardlo, A., Hron, K., Templ, M., Filzmoser, P. *Imputation of rounded zeros for data from metabolomics*

IAMG 2015, Freiberg, Germany:

Hron, K., Filzmoser, P., de Caritat, P. *Weighted balances for compositional data and their application to geosciences*

IAMG 2015, Freiberg, Germany:

van den Boogaart, K.G., McKinley, J., de Caritat, P., Filzmoser, P., Grunsky, E., Hron, K., Reimann, C., Tolosana-Delgado, R. *Compositional data-driven alternatives to single geochemical component maps*

IAMG 2015, Freiberg, Germany:

McKinley, J., Tolosana-Delgado, R., Hron, K., de Caritat, P., Grunsky, E., Reimann, C., Filzmoser, P., van den Boogaart, K.G. *What defines a geochemical map? Implications for environmental assessment*

IAMG 2015, Freiberg, Germany:

Fačevicová, K., Bábek, O., Hron, K. *Geochemical signature of the Devonian/Carboniferous boundary – a compositional approach*

IWS 2015, Wien, Austria:

Hron, K., Kynčlová, P., Filzmoser, P. *Correlation analysis for compositional data in coordinates*

IWS 2015, Wien, Austria:

Kynčlová, P., Filzmoser, P., Hron, K. *Incorporating external non-compositional variables into a biplot of compositional data*

IWS 2015, Wien, Austria:

Mert, C., Filzmoser, P., Hron, K. *Error propagation of compositional data transformations*

AMISTAT 2015, Prague, CZ:

Fačevicová, K., Hron, K. *Exponential families as affine subspaces of the Bayes space* (poster)

AMISTAT 2015, Prague, CZ:

Talská, R., Hron, K., Menafoglio, A. *Exponential families from the perspective of Bayes spaces: A simulation study* (poster)

SDA 2015, Orléans, France:

Hron, K., Filzmoser, P., Menafoglio, A. *Distributional modeling using the logratio approach*

ERCIM 2015, London, UK:

Hron, K., Filzmoser, P. *Interpretation of outliers in compositional data using the R-package mvoutlier* (invited)

ERCIM 2015, London, UK:

Fačevicová, K., Hron, K. *A general approach to orthonormal coordinate representation of compositional tables*

2016   RBras, Salvador, Brazil:

Todorov, V., Hrůzová, K., Hron, K., Filzmoser, P. *An R package for robust orthogonal regression for compositional data*

IAS 2016, Marrakech, Morocco:

Poukarová, H., Hron, K., Bábek, O., Hladil, J., Faměra, M., Šimíček, D., Weiner, J., Slavík, L. *Quantitative compositional analysis of the free sections recording Lochkovian-Pragian boundary event in the Barrandian area (Prague Synform, Czech Republic)*

CAC 2016, Barcelona, Spain:

Walach, J., Filzmoser, P., Hron, K., Walczak, B. *A pairwise log-ratio method for the identification of biomarkers*

Jarní workshop České statistické společnosti, Praha, CZ:

Gardlo, A., Hron, K., Filzmoser, P. *Využití vážených bilancí při analýze metabolomických dat*

5. konference České společnosti pro hmotnostní spektrometrii, České Budějovice, CZ:

Friedecký, D., Karlíková, R., Široká, J., Faber, E., Mičová, K., Gardlo, A., Janečková, H., Vrobel, I., Najdekr, L., Jáčová, J., Hron, K., Adam, T. *Význam klinické metabolomiky založené na hmotnostní*

spektrometrii

ICORS 2016, Geneva, Switzerland:
Todorov, V., Hrůzová, K., Hron, K., Filzmoser, P. *Robust orthogonal regression for compositional data in R*

CEmSG 2016, Ljublana, Slovenia:
Poukarová, H., Hron, K., Bábek, O., Hladil, J., Faměra, M., Šimíček, D., Weiner, T., Slavík, L. *Quantitative microfacies analysis of Lochkovian-Pragian boundary sections of the Barrandian area (Prague Basin, Czech Republic): Results from multivariate statistical methods based on raw data and their clr coordinates*

COMPSTAT 2016, Oviedo, Spain:
Fačevicová, K., Hron, K., Todorov, V., Templ, M. *Compositional tables with applications in robust statistical analysis: Methodology and computing*

COMPSTAT 2016, Oviedo, Spain:
Hron, K., Filzmoser, P., Gardlo, A. *Univariate analysis of compositional data using weighted balances* (invited)

IGC 2016, Cape Town, South Africa:
Hron, K., Filzmoser, P., Kynčlová, P. *Correlation analysis for compositional data using logratio coordinates*

Robust 2016, Rejhotice, CZ:
Fačevicová, K., Hron, K. *Souřadnicová reprezentace kompozičních tabulek*

Robust 2016, Rejhotice, CZ:
Fišerová, E., Müller, I., Hron, K. *Regresní analýza kompozičních dat a její interpretace*

Robust 2016, Rejhotice, CZ:
Gardlo, A., Templ, M., Hron, K., Filzmoser, P. *Imputace nulových hodnot v metabolomice*

Robust 2016, Rejhotice, CZ:
Hron, K. *Možnosti jednorozměrné statistické analýzy kompozičních dat*

Robust 2016, Rejhotice, CZ:
Hrůzová, K., Todorov, V., Hron, K., Filzmoser, P. *Klasická a robustní ortogonální regrese mezi složkami kompozice*

Robust 2016, Rejhotice, CZ:
Talská, R., Hron, K., Machalová, J., Fišerová, E. *Kompoziční regrese s funkcionální závisle proměnnou*

ERCIM 2016, Sevilla, Spain:
Hron, K., Templ, M., Filzmoser, P. *Exploring outliers in compositional data with structural zeros*

ERCIM 2016, Sevilla, Spain:
Talská, R., Menafoglio, A. Hron, K., Fišerová, E., Machalová, J. *Functional regression analysis with compositional response*

ERCIM 2016, Sevilla, Spain:
Fišerová, E., Müller, I., Hron, K. *Regression with compositional data and its interpretation*

2017   Tříkrálová konference, Praha, CZ:
Hron, K. *Od logkontrastu k logpodílovým souřadnicím pro kompoziční data* (invited)

EGU General Assembly 2017, Vienna, Austria:
Filzmoser, P., Hron, K., Kynčlová, P. *Correlation between variables in compositional data*

Brassica2017, Pontevedra, Spain:
Kopecký, P., Hrůzová, K., Hron, K., Hýbl, M. *Resistance comparison of cauliflower and kohlrabi to clubroot* (poster)

HPLC 2017, Prague, CZ:
Friedecký, D., Karlíková, R., Široká, J., Mičová, K., Gardlo, A.,

Janečková, H., Vrobel, I., Najdekr, L., Jáčová, J., Hron, K., Adam, T. *Untargeted metabolomics in diagnosing inherited metabolic diseases*
ODAM 2017, Olomouc, CZ:

Štefelová, N., Alfons, A., Palarea-Albaladejo, J., Filzmoser, P., Hron K. *Regression analysis with compositional covariates in the presence of cellwise contamination*
ODAM 2017, Olomouc, CZ:

Walach, J., Filzmoser, P., Hron, K., Walczak, B., Najdekr, L. *A variable selection method for a two-group problem based on a pairwise log-ratio approach*
ODAM 2017, Olomouc, CZ:

Rendlová, J., Fačevicová, K., Hron, K., Filzmoser, P. *Dimension reduction for compositional tables using robust principal component analysis*
ODAM 2017, Olomouc, CZ:

Gardlo, A., Hron, K. *Weighted pivot coordinates and its application to metabolomics*
ODAM 2017, Olomouc, CZ:

Hron, K., Filzmoser, P., Caritat, P. de, Fišerová, E. *Choice of weights in weighted pivot coordinates with application to geochemical mapping*
ODAM 2017, Olomouc, CZ:

Talská, R., Menafoglio, A., Hron, K., Fišerová, E., Machalová, J. *Linear regression models with distributional response*
CoDaWork 2017, Abbadia San Salvatore, Italy:

Filzmoser, P., Kynčlová, P., Hron, K., Reimann, C. *Symmetric balances for determining pairwise association between compositional parts*
CoDaWork 2017, Abbadia San Salvatore, Italy:

Hron, K., Filzmoser, P., Caritat, P. de, Fišerová, E., Gardlo A. *Weighted pivot balances: Simulations and application to geochemical mapping*
CoDaWork 2017, Abbadia San Salvatore, Italy:

Gardlo, A., Hron K. *Weighted pivot balances applied to metabolomics* (poster)
CoDaWork 2017, Abbadia San Salvatore, Italy:

Talská, R., Menafoglio, A., Hron, K., Machalová, J., Fišerová, E. *Functional linear regression models with distributional response*
CoDaWork 2017, Abbadia San Salvatore, Italy:

Machalová, J., Hron, K., Talská, R., Menafoglio, A. *Simplicial splines for representation of density functions*
CoDaWork 2017, Abbadia San Salvatore, Italy:

Rendlová, J., Fačevicová, K., Hron, K., Filzmoser, P. *Robust principal component analysis for compositional tables* (poster)
CoDaWork 2017, Abbadia San Salvatore, Italy:

Štefelová, N., Alfons, A., Palarea-Albaladejo, J., Filzmoser, P., Hron, K. *Robust regression with compositional covariates in the presence of cellwise contamination* (poster)
CoDaWork 2017, Abbadia San Salvatore, Italy:

Templ, M., Hron, K., Filzmoser, P. *Exploring outliers in compositional data with structural zeros*
CoDaWork 2017, Abbadia San Salvatore, Italy:

Fišerová, E., Müller, I., Hron, K. *Compositional regression and its interpretation*
CoDaWork 2017, Abbadia San Salvatore, Italy:

Walach, J., Filzmoser, P., Hron, K., Walczak, B., Najdekr, L. *A robust pairwise log-ratio approach for variable selection and cell-wise outlier diagnostics with focus on metabolomic data*
CoDaWork 2017, Abbadia San Salvatore, Italy:

Fačevicová, K., Egozcue, J.J., Hron, K. *Compositional properties of Sudoku tables*
TIES-GRASPA 2017, Bergamo, Italy:
Hron, K., Filzmoser, P., Todorov, V. *Regression between parts of compositional data using symmetric balances* (invited)
TIES-GRASPA 2017, Bergamo, Italy:
Filzmoser, P., Kynčlová, P., Hron, K., Reimann, C. *Pairwise association between parts of a composition* (invited)
IAMG2017, Perth, Australia:
Hron, K., Filzmoser, P., Todorov, V. *Classical and robust regression between parts of compositional data using symmetric balances*
MOVISS 2017, Vorau, Austria:
Gardlo, A., Hron, K. *Compositional data analysis used in metabolomics*
MOVISS 2017, Vorau, Austria:
Cechová, M., Válková, M., Kučera, L., Barták, P., Smýkal, P., Hradilová, I., Soukup, A., Janská, A., Hron, K., Fačevicová, K., Bednář, P. *Study of seed dormancy by mass spectrometry combined with PCA and PLS-DA* (poster)
MOVISS 2017, Vorau, Austria:
Rendlová, J., Hron, K., Vencálek, O., Gardlo, A. *Bayesian counterpart to t-tests in compositional analysis of metabolomic data* (poster)
MOVISS 2017, Vorau, Austria:
Štefelová, N., Alfons, A., Palarea-Albaladejo, J., Filzmose, P., Hron, K. *Regression analysis with compositional covariates in the presence of cellwise outliers* (poster)
MOVISS 2017, Vorau, Austria:
Walach, J., Filzmoser, P., Hron, K., Walczak, B., Najdekr, L. *Cell-wise outlier diagnostics and its use for biomarker identification* (poster)
MOVISS 2017, Vorau, Austria:
Gardlo, A., Hron, K. *Weighted pivot coordinates and their use in metabolomics* (poster)
MOVISS 2017, Vorau, Austria:
Fišerová, E., Gardlo, A., Hron, K., Adam, T. *Modelling the relationship between acylcarnitines in neonates* (poster)
ERCIM 2017, London, UK:
Walach, J., Filzmoser, P., Hron, K., Walczak, B., Najdekr, L. *A new method for variable selection in a two and multi-group case*
ERCIM 2017, London, UK:
Hron, K., Menafoglio, A., Filzmoser, P. *Logratio approach to modeling of densities with application to multivariate functional principal component analysis* (invited)
ERCIM 2017, London, UK:
Rendlová, J., Fačevicová, K., Hron, K., Filzmoser, P. *Principal component analysis of compositional tables using classical and robust methods*
ERCIM 2017, London, UK:
Štefelová, N., Alfons, A., Palarea-Albaladejo, J., Filzmoser, P., Hron, K. *Robust regression on compositional variables including cell-wise outliers*
ERCIM 2017, London, UK:
Talská, R., Menafoglio, A., Hron, K. *Effects of changing the reference measure in statistical processing of density functions*
2018   Robust 2018, Rybník, CZ:
Hron, K., Egozcue, J.J., Pawlowsky-Glahn, V., Palarea-Albaladejo, J., Filzmoser, P., Menafoglio, A. *Vážení složek v analýze kompozičních dat*
Robust 2018, Rybník, CZ:
Fačevicová, K., Filzmoser, P., Hron, K. *Alternativní přístup k analýze*

vícefaktorových dat
Robust 2018, Rybník, CZ:
Rendlová, J., Hron, K., Vencálek, O., Friedecký, D., Gardlo, A.
Bayesovský přístup k t-testům v kompoziční analýze metabolických dat
(poster)
Robust 2018, Rybník, CZ:
Štefelová, N., Alfons, A., Palarea-Albaladejo, J., Filzmoser, P.,
Hron, K. *Robustní regrese s kompozičními vysvětlujícími proměnnými
s odlehlostí na úrovni buněk* (poster)
EGU General Assembly 2018, Vienna, Austria:
Hošek, M., Bábek, O., Sedláček, J., Talská, R., Hron, K., Faměra,
M., Matys Grygar, T. *On risk element fates in fluvial system and dam
reservoirs: case study on dam reservoirs in Chrudimka River, Czech Republic*
(poster)
1st CroNoS Workshop on Multivariate Data Analysis and Software,
Limassol, Cyprus:
Hron, K., Egozcue, J.J., Pawlowsky-Glahn, V., Palarea-Albaladejo,
J., Filzmoser, P., Menafoglio, A. *Weighting of parts in compositional data
analysis with applications*
DSSV 2018, Vienna, Austria:
Talská, R., Menafoglio, A., Hron, K., Sessci, P. *Changing the reference
measure and its effects in statistical processing of density data*
DSSV 2018, Vienna, Austria:
Štefelová, N., Palarea-Albaladejo, J., Hron, K. *Compositional PLS
regression with weighted pivot coordinates and its application to metabolomic
data*
DSSV 2018, Vienna, Austria:
Walach, J., Filzmoser, P., Hron, K. *The use of log-ratio methodology in cell-
wise outlier diagnostics*
Biometria 2018, Aveiro, Portugal:
Hron, K. *Biometry with compositional data* (invited short course)
COMPSTAT 2018, Iasi, Romania:
Hron, K., Rendlová, J., Fačevicová, K. *Compositional tables and their
coordinate representations* (invited)
IAMG2018, Olomouc, CZ:
Hron, K., Fačevicová, K., Bábek, O., Kumpan, T. *A compositional
approach to element chemostratigraphy of the Devonian/Carboniferous boundary*

2019 Final CroNoS meetings & Workshop on Multivariate Data Analysis,
Limassol, Cyprus:
Hron, K. *Applied compositional data analysis* (invited short course)
Final CroNoS meetings & Workshop on Multivariate Data Analysis,
Limassol, Cyprus:
Menafoglio, A., Talská, R., Hron, K., Machalová, J., Fišerová, E.
Function-on-scalar regression for distributional responses
Final CroNoS meetings & Workshop on Multivariate Data Analysis,
Limassol, Cyprus:
Talská, R., Menafoglio, A., Hron, K., Egozcue, J.J., Palarea-
Albaladejo, J. *Weighting in Bayes spaces and its effects in statistical processing
of density functions*
Final CroNoS meetings & Workshop on Multivariate Data Analysis,
Limassol, Cyprus:
Rendlová, J., Hron, K., Vencálek, O., Friedecký, D., Adam, T.
*Compositional analysis of untargeted metabolomic data using multiple Bayesian
hypotheses testing*
ODAM 2019, Olomouc, CZ:
Rendlová, J., Vencálek, O., Hron, K., Václavík, J., Friedecký, D.,

Adam, T. *Compositional analysis of untargeted metabolomic data using multiple Bayesian hypotheses testing*
ODAM 2019, Olomouc, CZ:

Hron, K., Engle, M., Filzmoser, P., Fišerová, E. *Bivariate analysis of compositional data using weighted symmetric pivot coordinates*
ODAM 2019, Olomouc, CZ:

Fačevicová, K., Vencálek, O., Filzmoser, P., Hron, K. *Compositional cubes and generalized linear models-similarities and differences*
ODAM 2019, Olomouc, CZ:

Štefelová, N., Palarea-Albaladejo, J., Hron, K. *Weighted pivot coordinates in PLS regression with compositional covariates and its application to metabolomic data*
ODAM 2019, Olomouc, CZ:

Talská, R., Menafoglio, A., Hron, K., Egozcue, J.J., Palarea-Albaladejo, J. *Weighted Bayes spaces*
CoDaWork 2019, Terrassa, Spain:

Machalová, J., Hron, K., Talská, R. *Simplicial splines: application and possible extensions*
CoDaWork 2019, Terrassa, Spain:

Fačevicová, K., Vencálek, O., Filzsmoser, P., Hron, K. *(Pre-processing of) Compositional cubes: Three-factorial compositional data*
CoDaWork 2019, Terrassa, Spain:

Talská, R., Menafoglio, A., Hron, K., Egozcue, J.J., Palarea-Albadalejo, J. *Changing reference measure in Bayes spaces and its effect in statistical processing of density functions*
CoDaWork 2019, Terrassa, Spain:

Hron, K., Engle, M., Filzmoser,P., Fišerová, E. *Weighted symmetric pivot coordinates with Earth science applications*
CoDaWork 2019, Terrassa, Spain:

McGregor, D.E., Palarea-Albaladejo, J., Dall, P., Hron, K., Chastin, S.F.M. *Cox regression survival analysis with compositional covariates: application to modelling mortality risk from 2-hour physical activity patterns*
CoDaWork 2019, Terrassa, Spain:

Rendlová, J., Hron, K., Vencálek, O., Friedecký D., Adam, T. *Bayesian approach to a univariate analysis of inherited metabolic disorder MCADD* (poster)
CoDaWork 2019, Terrassa, Spain:

Štefelová, N., Alfons, A., Palarea-Albaladejo, J., Filzmoser, P., Hron, K. *Robust regression with compositional covariates including cellwise outliers* (poster)
INTUE 2019, Olomouc, CZ:

Hron, K. *Compositional data analysis: Fundamental concepts and recent developments* (keynote)
INTUE 2019, Olomouc, CZ:

Štefelová, N., Dygrýn, J., Hron, K., Gába, A., Rubín, L., Palarea-Albaladejo, J. *Robust compositional analysis of physical activity and sedentary behaviour data*
INTUE 2019, Olomouc, CZ:

Gába, A., Dygrýn, J., Štefelová, N., Hron, K., Pedišić, Ž., Dumuid, D. *Does reallocation of time from sedentary bouts to physical activity reduce adiposity in children?*
INTUE 2019, Olomouc, CZ:

Pelclová, J., Štefelová, N., Dumuid, D., Pedišić, Ž., Hron, K., Gába, A., Olds, T., Pechová, J., Zając-Gawlak, I., Tlučáková, L. *Are longitudinal reallocations of time between movement behaviours associated with*

adiposity among elderly women? A compositional isotemporal substitution analysis
VIBASS 3, Valencia, Spain:
Hron, K., Dostál, J. *Convergence of posterior distributions within the Bayes spaces approach* (poster)
IAMG2019, State College, USA:
<u>Hron, K.</u>, Matys Grygar, T., Bábek, O., Talská, R. *Analyzing changes in the geochemistry of fluvial sediments after dam construction using compositional regression with functional covariates*
CLADAG 2019, Cassino, Italy:
<u>Hron, K.</u>, Rendlová, J., Filzmoser, P. *Classification with weighted compositions*
SEIO 2019, Valencia, Spain:
<u>Palarea-Albaladejo, J.</u>, Štefelová, N., Hron, K., Martín-Fernández, J.A. *Exploring optimal log-ratio representations for high-dimensional compositional data with applications to regression analysis in metabolomics*
ERCIM 2019, London, UK:
<u>Hron, K.</u>, Štefelová, N., Palarea-Albaladejo, J. *Weighting of logratios in compositional regression*
ERCIM 2019, London, UK:
Fačevicová, K., Hron, K., Filzmoser, P. *Coordinate representation of three-factorial compositional data* (poster)

2020 ERCIM 2020, online:
<u>Hron, K.</u>, Menafoglio, A., Palarea-Albaladejo, J., Filzmoser, P., Talská, R., Egozcue, J.J. *Weighting of parts in compositional data and its applications*
ERCIM 2020, online:
<u>Machalová, J.</u>, Hron, K., Talská, R. *Approximation of density functions using compositional splines*
ERCIM 2020, online:
<u>Pavlů, I.</u>, Talská, R., Hron, K., Šimíček, D., Bábek, O. *Compositional scalar-on-function regression with a geological application*

2021 vEGU 2021, online:
Hron, K., Menafoglio, A., Palarea-Albaladejo, J., Filzmoser, P., Egozcue, J.J. *Purposeful weighting of components in geochemical (compositional) data and its applications*
EPSO 2021, online:
<u>Smýkal, P.</u>, Bednář, P., Hron, K., Brus, J., Pechanec, V., Duchoslav, M., Renzi, J., Verdier, J., Trněný, O., Pirintsos, S., von Wettberg, E. *Time to sleep or to germinate ? A case of legumes seed dormancy*
IWFOS 2021, online:
Hron, K., Machalová, J., Menafoglio, A. *Orthogonal decomposition of bivariate densities using Bayes spaces*
DSSV 2021, online:
Hron, K., Machalová, J., Menafoglio, A. *Orthogonal decomposition and functional data analysis of bivariate densities using the Bayes space methodology*
DSSV 2021, online:
<u>Pavlů, I.</u>, Hron, K., Menafoglio, A., Filzmoser, P. *Linear discriminant analysis of probability density functions using the Bayes space methodology*
DSSV 2021, online:
<u>Jašková, P.</u>, Hron, K., Gába, A. *Compositional functional regression with isotemporal substitution and its application to time-use behavioural data*
DSSV 2021, online:
Nesrstová, V., Hron, K., Filzmoser, P., Martín-Fernández, J.A., Palarea-Albaladejo, J., Wilms, I. *Variable selection in compositional data using PLS-based balance coordinates*

SIS 2021, Pisa, Italy (hybrid):
Hron, K., Filzmoser, P. *Assessing relationships in relative data using symmetric pivot coordinates*
ICORS 2021, Vienna, Austria (hybrid):
Nesrstová, V., Hron, K., Martín-Fernández, J.A., Filzmoser, P., Palarea-Albaladejo, J., Wilms, I. *Variable selection in compositional data using balance coordinates based on robust PLS*
ICORS 2021, Vienna, Austria (hybrid):
Hron, K., Štefelová, N., Alfons, A., Palarea-Albaladejo, J., Filzmoser, P. *Cellwise robust regression with compositional and real-valued covariates*
CMStatistics 2021, London, UK (hybrid):
Hron, K., Rendlová, J., Filzmoser, P. *Classification of compositional data with selective pivot coordinates*
CMStatistics 2021, London, UK (hybrid):
Nesrstová, V., Hron, K., Filzmoser, P., Wilms, I. *Identification of significant pairwise logratios in compositional data based on sparse PCA*
CMStatistics 2021, London, UK (hybrid):
Pavlů, I., Hron, K., Menafoglio, A., Filzmoser, P., Bongiorno, E. *Classification techniques for probability density functions in the Bayes space framework*
CMStatistics 2021, London, UK (hybrid):
Jašková, P., Hron, K., Gába, A. *Isotemporal substitution in time-use behavioural data with compositional scalar-on-function regression*

2022 CoDaWork2022, Toulouse, France:
Machalová, J., Hron, K. *Spline representation for bivariate densities*
CoDaWork2022, Toulouse, France:
Jašková, P., Templ, M., Hron, K. *Forward selection with orthogonal pairwise logratios in regression with compositional covariates*
CoDaWork2022, Toulouse, France:
Nesrstová, V., Wilms, I., Hron, K., Martín-Fernández, J.A., Filzmoser, P., Palarea-Albaladejo, J. *Analysing high-dimensional compositional data using PLS-based principal balances*
CoDaWork2022, Toulouse, France:
Pavlů, I., Hron, K., Menafoglio, A., Bongiorno, E., Filzmoser, P. *An overview of classification methods for functional distributional data*
IFCS 2022, Porto, Portugal:
Nesrstová, V., Wilms, I., Hron, K., Martín-Fernández, J.A., Filzmoser, P., Palarea-Albaladejo, J. *PLS-based principal balances for regression and classification with high-dimensional compositional data*
COMPSTAT 2022, Bologna, Italy (hybrid):
Hron, K., Menafoglio, A., Palarea-Albaladejo, J., Filzmoser, P., Egozcue, J.J. *Weighting of parts in compositional data using Bayes Hilbert spaces*
COMPSTAT 2022, Bologna, Italy (hybrid):
Fačevicová, K., Filzmoser, P., Hron, K. *Analysis of multi-factorial compositional data main principles and perspectives*
COMPSTAT 2022, Bologna, Italy (hybrid):
Jašková, P., Hron, K., Palarea-Albaladejo, J., Gába, A., Pedišić, Ž., Dumuid, D. *Scalar-on-function regression and functional isotemporal substitution analysis in the context of time-use data*
IAMG2022, Nancy, France:
Hron, K., Matys Grygar, T. *Compositional scalar-on-function regression with application to sedimentary geochemistry*
CMStatistics 2022, London, UK (hybrid):
Pavlů, I., Hron, K: *Generalization of cell-wise outlier identification for*

probability density functions
CMStatistics 2022, London, UK (hybrid):
Jašková, P., Templ, M., Hron, K., Palarea-Albaladejo, J.: *Sparse pairwise logratio variable selection for high-dimensional compositional data*
CMStatistics 2022, London, UK (hybrid):
Nesrstová, V., Jašková, P., Pavlů, I., Fačevicová, K., Hron, K.: *Analysis of multifactorial relative data*

2023   ODAM 2023, Olomouc, CZ:
Nesrstová, V., Wilms, I., Hron, K., Filzmoser, P. *Identification of important pairwise logratios in compositional data employing sparse principal component analysis*
ODAM 2023, Olomouc, CZ:
Fačevicová, K., Nesrstová, V., Jašková, P., Hron, K., Pelclová, J., Gába, A. *Analysis of two-way compositions based on the elemental information*
ODAM 2023, Olomouc, CZ:
Jašková, P., Templ, M., Hron, K., Palarea-Albaladejo, J. *Sparse pairwise logratio variable selection for high-dimensional compositional data*
ODAM 2023, Olomouc, CZ:
Škorňa, S., Burkotová, J., Hron, K., Machalová, J. *Bivariate compositional splines for representation of density functions*
ODAM 2023, Olomouc, CZ:
Hron, K., Genest, C., Nešlehová, J. *Orthogonal decomposition of multivariate densities in Bayes spaces with application to functional data analysis*
ODAM 2023, Olomouc, CZ:
Pavlů, I., Machalová, J., Tolosana–Delgado, R., Hron, K., van den Boogaart, K.G. *Distributional principal component analysis with application to particle size distributions*

PROCEEDINGS

2009   NTTS 2009, Brussels, Belgium:
Templ, M., Filzmoser, P., Hron, K. *Robust imputation of missing values in compositional data using the R-package robCompositions*
UNECE 2009, Neuchatel, Switzerland:
Templ, M., Filzmoser, P., Hron, K. *Imputation of item non-responses in compositional data using robust methods*

2010   Robust 2010, Králíky, CZ:
Hron, K. *Elementy statistické analýzy kompozičních dat*
COMPSTAT 2010, Paris, France:
Filzmoser, P., Hron, K. *Robust methods for compositional data*
CDAM 2010, Minsk, Belarus:
Hron, K., Templ, M., Filzmoser, P. *Exploratory compositional data analysis using the R-package robCompositions*
CDAM 2010, Minsk, Belarus:
Filzmoser, P., Hron, K. *Multivariate outlier detection with compositional data*
SMPS 2010, Oviedo, Spain:
Hron, K., Filzmoser, P. *Elements of robust regression for data with absolute and relative information*

2011   CoDaWork'11, Sant Feliu de Guíxols (Girona), Spain:
Filzmoser, P., Hron, K., Templ, M. *Robust compositional data analysis*
CoDaWork'11, Sant Feliu de Guíxols (Girona), Spain:
Templ, M., Filzmoser, P., Hron, K. *Analysis of compositional data using robust metods. The R-package robCompositions*

2012   SMPS 2012, Konstanz, Germany:
Hron, K., Filzmoser, P. *Robust diagnostics of fuzzy clustering results using the compositional approach*

2013   CoDaWork 2013, Vorau, Austria:
van den Boogaart, K.G., Tolosana-Delgado, R., Hron, K., Templ, M., Filzmoser, P.: *Compositional regression with unobserved components or below detection limit values*
CoDaWork 2013, Vorau, Austria:
Fačevicová, K., Hron, K.: *Statistical analysis of 2x2 compositional tables*
CoDaWork 2013, Vorau, Austria:
Hrůzová, K., Hron, K.: *Compositional data analysis of German national accounts*
CoDaWork 2013, Vorau, Austria:
Kalivodová, A., Hron, K., Župková, M., Friedecký, D.: *Partial least squares for compositional data used in metabolomics*
SIS 2013, Brescia, Italy:
Hron, K., Filzmoser, P.: *Exploring compositional data with the robust compositional biplot*
IAMG 2013, Madrid, Spain:
Hron, K., Filzmoser, P., Templ, M., van den Boogaart, K.G., Tolosana-Dalgado, R. *Robust regression with compositional response: Application to geosciences*

2014   MME 2014, Olomouc, CZ:
Hrůzová, K., Hron, K., Todorov, V., Filzmoser, P. *Regression among parts of compositional data with an economic application*
MME 2014, Olomouc, CZ:
Fačevicová, K., Todorov, V., Hron, K. *Compositional tables analysis with application to manufacturing*
SMPS 2014, Warsaw, Poland:
Pavlačka, O., Hron, K. *Interval compositional data: Problems and possibilities*

2015   CoDaWork 2015, L'Escala, Spain:
Tolosana-Delgado, R., van den Boogaart, K.G., Fišerová, E., Hron, K., Dunkl, I. *Joint compositional calibration: a geochronological example*